



SPACE-BASED POSITIONING
NAVIGATION & TIMING
NATIONAL COORDINATION OFFICE

U.S. Space-Based Positioning, Navigation & Timing (PNT) Policy Update

**53rd Civil GPS Service Interface Committee Meeting
Nashville, Tennessee**

**Col Harold W. Martin III
Deputy Director
National Coordination Office**



Overview



- **Policy**
- **U.S. Space-Based PNT Organization**
- **Recent Space-Based PNT EXCOM Activities**
- **Outreach**



National Space Policy, 2010

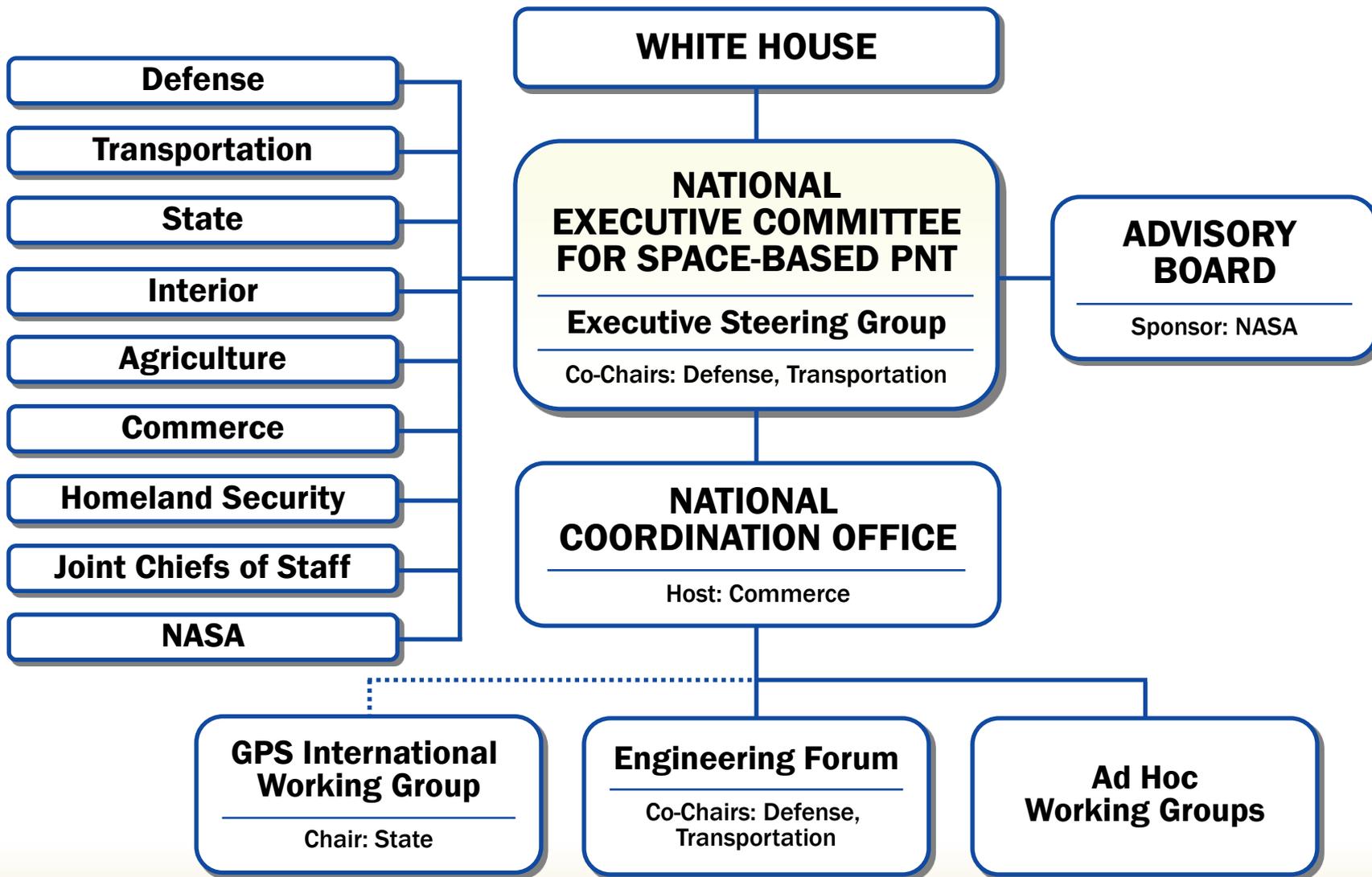


The U.S. must maintain its leadership in the service, provision and use of Global Navigation Satellite Systems (GNSS)

- **Provide continuous worldwide access to GPS for peaceful uses, free of direct user charges**
- **Encourage compatibility and interoperability with foreign GNSS services**
- **Operate and maintain constellation to satisfy civil and national security needs**
 - **Foreign PNT may be used to strengthen resiliency**
- **Invest in domestic capabilities and support international activities to detect, mitigate and increase resiliency to harmful interference**



U.S. Space-Based PNT Organization Structure





National Coordination Office (NCO) for Space-Based PNT



- **Director:** Dr. Jan Brecht-Clark, DOT
- **Deputy Director:** Col Harold Martin, DOD/AF
- Ken Alexander, DOT/FAA
- Maj Ben Calhoun, DOD/AF
- Robert Crane, DHS
- Anita Eisenstadt, State
- Rick Foote, DOC/NOAA
- Glenn Guempel, DOI
- Everett Hinkley, USDA
- Jason Kim, DOC
- Trent Skidmore, NASA
- Colleen Alexander, AGS
- Jim Burton, Overlook
- Steve Sidorek, Overlook

Many new faces, strong continuity of mission



National Space-Based PNT Advisory Board



- Provides independent advice/recommendations on PNT policy and management issues
- 25 members, including 5 international
 - Chair: Hon. James Schlesinger
 - Vice Chair: Dr. Brad Parkinson
- Met May 7-8 to discuss ways to measure and communicate economic value of GPS to our Nation



Recent EXCOM Activities



- **PNT Critical Infrastructure Resiliency (CIR)**
- **U.K. Patent Issue**
- **Spectrum**



PNT CIR



- **GPS dependencies & next steps discussed 2010-2012**
 - Cell phone towers
 - Power grid synchronization
 - NextGen
- **Updated Guidance: February 2013**
 - Presidential Policy Directive 21
 - Executive Order 13636
- **Ongoing Interagency effort to address PNT CIR**
 - National Infrastructure Protection Plan Framework
 - “All Hazards” approach
 - Jamming and spoofing of civil systems remain focus area



U.K. Patent Issue



- Interagency effort began in 2012
- January 2013 Joint U.S. and U.K. Statement
 - U.K. commitment to dedicate all patents relating to U.S. GPS civil signal designs to the public domain
 - Joint commitment to free/openly available GPS civil signals
 - Interagency commitment to follow-up actions



Spectrum



- **2010 & 2013 Presidential Memorandums**
 - 500 MHz broadband initiative, with sharing
- **LightSquared, Dish, Globalstar**
 - Multiple broadband companies with filings near GPS
- **National Advanced Spectrum & Communications Test Network (NASCTN)**
 - Facilitate and Coordinate: testing and evaluation of spectrum sharing capabilities

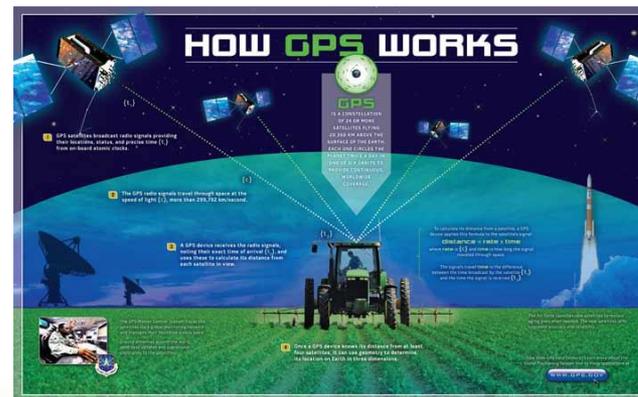
***Spectrum Protection Issues Continue for GPS
and Have National-Level Attention***



Outreach



- **GPS.gov**
 - Mobile version of homepage and CGSIC section
 - Educational section
- **Educational efforts**
 - Developed & distributed new poster via National Science Teachers Association, Earth Science Week, etc. (22K+)
 - 4H Geospatial Summit
- **Exhibits**
 - Smithsonian, GPS Adventures
- **International conferences**
 - Moscow, IGC, APEC GIT, ION
- **Newsletter for Capitol Hill**





Summary



- **GPS receives national-level attention and guidance**
- **U.S. policy upholds longstanding commitments to free, continuous, worldwide GPS access**
- **Spectrum issues continue for GPS**
- **Broad outreach efforts to promote understanding of GPS across America and beyond**



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